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Business Equipment Manufacturers Association

235 East 42nd Street, New York 17, New York — MUrray Hill 7-5969

X 3.2/306

X4-A9.1/60

November 4, 1965

Mr. Michael Dorochin
Chairman of ASA X4-A9
Royal Typewriter Company, Inc.
150 Park Avenue
Hartford 6, Connecticut

SUBJECT: ISO Document ISO/TC97/SC 2
(Secr. 43) 150, Keyboard
Layout for ISO 7-Bit Code

Mr. Joseph P. Ancona has requested that Working Group ASA X4-A9.1 review Document ISO/TC 97/SC 2 (Secr. 43) 150 and develop comments for subsequent transmittal to ISO/TC 95/SC 1.

The attached memorandum was prepared by Working Group X4-A9.1 in response to this request. If the memorandum is acceptable to Subcommittee ASA X4-A9, please transmit to Mr. Vincent G. Grey, American Standards Association and send a copy to Mr. J. P. Ancona, Vice Chairman of ASA X4-A1.

John B. Booth
John B. Booth,
Chairman ASA X4-A9.1

JBB/mb
Enclosures (2)

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Business Equipment Manufacturers Association

235 East 42nd Street, New York 17, New York — MURRAY HILL 7-5969

November 4, 1965

Mr. Vincent G. Grey
Mechanical Engineer
American Standards Association
10 East 40th Street
New York, New York

SUBJECT: ISO Document ISO/TC 97/SC 2
(Secr. 43) 150, Keyboard
Layout for ISO 7-Bit Code

The subject ISO document ISO/TC 97/SC 2 (Secr. 43) 150 has been reviewed by Working Group X4-A9.1 and it has been concluded that the proposed keyboard layout for the ISO 7-Bit Code would be unacceptable to the United States as an international standard.

Working Group X4-A9.1 is presently developing a proposed American Standard Keyboard Arrangement for the implementation of ASCII. To expedite the development of a proposal, the effort of the Working Group is being directed towards: 1) the development of a specific keyboard layout and, 2) the drafting of a proposed American Standard, including the appendix and expository remarks, to encompass the keyboard layout which is finally agreed upon.

Although the Working Group has not completed its technical deliberations, there are a number of areas of the subject ISO document which the Working Group would find unacceptable in an international standard, these are detailed below:

1) We find the pairing of period and comma unacceptable. We believe both should be in the lower case, with comma next to M, to conform to U. S. usage. Furthermore, the pairing of period and comma violates the criterion requiring a one-bit difference (Bit 5 or Bit 6) between symbols on the same keytop. Our placement of period and comma displaces question mark and slant to Key 41, but in inverted relationship (slant in lower case) to conform to present U. S. practices. In addition, this would displace the equal sign and hyphen; our preferred location for these would be Key 40.

2) We find the pairing of zero and underline unacceptable since it violates the criterion which requires a one bit difference (Bit 5 or Bit 6) between symbols on the same keytops. The pairing of greater than and less than is unacceptable to the U. S. These should be on different keys in the same case and, for manufacturing convenience, paired with period and comma respectively.

3) The assignment of high usage graphics to Keys 45 and 46 and low usage graphics to Keys 39, 42, and 43 is unacceptable to the U. S. In addition, our present development dictates the use of one or more

of these keys for functions. Possibly an international standard would have these five key positions unassigned.

4) The location of function keys has not been completely resolved by the U. S. However, we believe the probability of the acceptance by the U. S. of the position of Line Feed and Carriage Return is very low. In addition, we have not developed our position regarding the location of Backspace function key and, therefore, reserve comment at this time.

5) Reiterating our previous position regarding the assignment of X and , working group X4-A9.1 yields to Subcommittee X4-A1 for resolution of this conflict.

Michael Dorochin
Chairman, ASA X4-A9

cc: Mr. J. P. Ancona, Vice Chairman X4-A1

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